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c) an outer tube surrounding the inner tube, wherein the outer tube is in fluid communication with the inner tube, wherein no other tube is disposed between and spaced apart from the inner and outer tubes.

REMARKS

Reexamination and reconsideration of the application as amended are requested. Support for the added language in twice-amended claim 1 is found, for example, in Figure 2.

The Examiner's rejection of claims 1-14 as being "anticipated", under 35 U.S.C. 102, is respectfully traversed. The Examiner rejects these claims as being unpatentable over Wulff (US 5,632,361). Claims 2-5 depend from claim 1 and claims 7-14 depend from claim 6.

Independent claims 1 and 6 require that the inner tube 12 have an imperforate sidewall and that no other tube be disposed between and spaced apart from the inner and outer tubes 12 and 16. The Examiner states that Wulff provides an MR (magnetorheological) damper having an inner tube (Wulff calls it a work cylinder) 12 having an imperforate sidewall, an outer tube (Wulff calls it an external tube) 4 in fluid communication with the inner tube 12, and (with the Examiner directing us to see column 3, lines 25-27 of Wulff) a valve 207 disposed proximate an end of the inner tube 12 and providing fluid communication between the tubes 12 and 4. Applicants respectfully disagree.

Wulff states in lines 6-7 of column 3 under his heading of "Brief Description Of The Drawings" that "Preferred embodiments of the invention are illustrated schematically (emphasis added) in the accompanying figures." The embodiment of "Fig. 1 shows a vibration damper in a plan view, in partial section". (See column 3, lines 8-9). The embodiment of Fig. 10 "illustrates a shock absorber having subsidiary components, including a bottom valve, with which the present invention could be employed." (See column 3, lines 25-27.) The invention is the application of a permanent magnetic field to the MR fluid, such invention (i.e., permanent magnet 6) being shown in some of the other figures but not being shown in Figure 1 or in Figure 10.

There is no teaching, suggestion or description in Wulff that the inner tube 12 of his Figure 1 embodiment (Wulff calls the inner tube a work cylinder in the Fig. 1-embodiment) has an imperforate wall. Figure 1 of Wulff shows schematically only a small longitudinal portion of his inner tube 12 with the majority of his inner tube 12 being hidden from view in Figure 1. The Examiner has no grounds to allege that the inner tube 12 of Figure 1 of Wulff has an imperforate sidewall. Applicants point out that the embodiment in Figure 10 of Wulff shows his inner tube 202 (Wulff calls it a pressure pipe in the Fig. 10 embodiment) with an orifice 210 (see Fig. 10 and column 6, line 47) in the sidewall so that the inner tube 202 does not have an imperforate sidewall as required by Applicants' claims 1-14. As the figures in Wulff are admittedly schematic, Fig. 10 could simply be one example of a particular more detailed embodiment of Fig. 1.

Further, there is no teaching, suggestion or description in Wulff to add only the bottom valve 207 in his Fig. 10 embodiment to his Fig. 1 embodiment as apparently is being done by the Examiner in his rejection of claims 1-14. When adding, in Wulff, the bottom valve 207 of his Fig. 10 embodiment to his Fig. 1 embodiment, the Examiner tells us to see column 3, lines 25-27 of Wulff. Such citation states that "FIG. 10 illustrates a shock absorber having subsidiary components, including a bottom valve, with which the present invention could be employed." It says subsidiary components in the plural and not bottom valve subsidiary component in the singular. It is noted that the bottom valve 207 in the Fig. 10 embodiment is stated as being in communication with a compensating chamber 212 (see column 6, lines 58-60) that is confined between the intermediate pipe 209 and a portion of the pressure pipe (inner tube) 202, on the one hand, and the container tube (outer tube) 216 on the other hand (see column 6, lines 49-52). The Fig. 1 embodiment only describes an equalization chamber (not numbered) formed between the work cylinder (inner tube) 12 and the external tube (outer tube) 4 (see column 3, lines 36-39). How can one bring the Fig. 10 embodiment of the bottom valve 207 which is in communication with a compensating chamber 212 defined in part by an intermediate pipe 209 into the Fig. 1 embodiment without also bringing in the intermediate pipe 209 into the Fig. 1 embodiment? The intermediate pipe 209 is located between the pressure pipe (inner tube) 202 and the container tube (outer tube) 216 as seen in Figure 10. Applicants' damper 10 operates without any intermediate pipe and thus is less expensive to manufacture than the damper 200 of Wulff. It is

noted that independent claims 1 and 6 require that no other tube is disposed between and spaced apart from the inner and outer tubes. Applicants argue that the Examiner is using impermissible hindsight in reconstructing Applicants' claimed invention.

Claims 2-5 and 10-14 require that fluid flows out of and into the inner tube 12 only proximate the first end 18 of the inner tube 12. The Fig. 1 embodiment of Wulff does not describe if and how fluid flows out of and into the inner tube 12. The Fig. 10 embodiment of Wulff has fluid also flowing out of and into the inner tube 202 through orifice 210 in the sidewall of the inner tube 202. Claims 3-4 and 13-14 require all of the fluid which flows out of and into the inner tube 12 pass through the valve 22. As previously mentioned, the Fig. 1 embodiment of Wulff does not describe if and how fluid flows out of and into the inner tube 12. The Fig. 10 embodiment of Wulff has some fluid flowing out of and into the inner tube 202 through orifice 210 in the sidewall of the inner tube 202.

Concerning claim 11, the Examiner alleges that "clearly the upper portion of the outer tube of Wulff contains a gas". This is true of the Fig. 10 embodiment (as noted in column 6, lines 55-58) which states that there possibly is a gas. However, there is nothing about the possibility of a gas in the Fig. 1 embodiment. Concerning claim 14, there is no description in Wulff that bottom valve 207 is a pressure and flow control valve.

The examiner's rejection of claim 15 as being "obvious", under 35 U.S.C. 103, is respectfully traversed. The examiner rejects this claim as being unpatentable over Wulff in view of Jensen (US 5,333,708). Claim 15 depends indirectly from claim 6 through intervening claims 8, 10, 13 and 14. Applicants' previous discussion as to the patentability of claims 6, 10, 13 and 14 over Wulff is herein incorporated by reference.

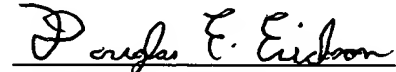
It is clear that the patents cited by the Examiner, taken alone or in combination, do not teach, suggest, or describe the subject matter of Applicants' claimed invention.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

Serial No.: 09/822,792
Attorney Docket No.: DP-304351
Amendment

Inasmuch as each of the rejections has been answered by the above remarks and amended claim, it is respectfully requested that the rejections be withdrawn, and that this application be passed to issue.

Respectfully submitted,


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Serial No.: Q9/822,792
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Amendment

Version with markings to show changes made

In the claims:

Claim 1 has been amended as follows:

1. (Twice Amended) A magnetorheological damper comprising:
 - a) an inner tube having an imperforate sidewall;
 - b) a magnetorheological piston disposed within and slideably engaging the inner tube;and
 - c) an outer tube surrounding the inner tube, wherein the outer tube is in fluid communication with the inner tube, wherein no other tube is disposed between and spaced apart from the inner and outer tubes.

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